ELCLOG



VOLUME TWO • ISSUE ONE WINTER 2001

PRODUCT TEST AND MEASUREMENT IS Serious Business

"Lab Certifies Accuracy of It's Products"

By William C. Walstrum

Faced with the arduous task of becoming ISO 9001 compliant in 1998, the ELC's Electronic Systems Laboratory recognized early on that it would have to develop and implement a rigorous system for assuring product accuracy. The system would be required to provide for and validate the control and calibration of every piece of measuring and test equipment (M&TE) used by the Lab in the final performance and quality assurance testing of products for which the Lab is responsible.

What that really means is, that when a unit submits a Milstrip requisition for a replacement piece of equipment, specifically those covered under the ELC's Appropriated Purchase Account (APA) program, it can be assured that the equipment has been tested to be in total conformance

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Institutionalizing a Quality Management System at the ELC

'ISO' IS MORE THAN A PASSING FAD



By William C. Walstrum

onceived by the International Organization for Standardization in Geneva Switzerland, the ISO 9000 series of standards were established to provide guidance to organizations that desire to understand, implement and maintain a Quality Management System. Becoming an ISO 9000 series certified organization makes an internationally recognized statement. It proclaims that an organization has made a significant commitment toward the establishment of quality as a significant cornerstone of the organization. Effectively, it defines the organization, as one comprised of quality people employing standardized practices to produce quality products. Rather than a passing fad at the ELC, quality management has become a blueprint for continuous process and product improvement that begins and ends with you, the customer.

With the ELC's decision to achieve certification to the most comprehensive standard in the series, ISO 9001, a substantial commitment was made in 1998 to invest time, energy and money toward establishing compliance with the standard. For our organization, this meant that sweeping change was in the air. What became evident was that people performed their duties in many different ways and some would surely resist any procedural change. Notwithstanding the resistance to change, compliance meant that the entire organization, every military and civilian member from every Division and Branch in the organization, would be required to adopt a total quality mindset that would give rise to and result in a well-defined set of customer focused business processes. These processes and procedures were established to streamline operations, improve efficiency, reduce waste and rework, improve quality, and ultimately reduce the number of ELC product defects. Whether it is product design, product manufacturing and repair, inspection, storage, or the delivery of parts, information or services, the Engineering Logistics Center is committed to maintaining strict product quality control.

What this means to the deckplate sailor is that each and every request made to this organization for technical or logistical support will be acted upon with a constancy of purpose that is hallmarked by the effective and efficient satisfaction of the needs of our customers. ψ





Why ISO at the ELC?

Hello and Welcome Again to the ELCLOG

In the Summer 2000 issue of the ELCLOG, I discussed Strategic Planning as a successful tool in the ELC "Quality Toolbox". ISO Certification is another successful quality tool we implemented during the first four years of the ELC's short history. Let me tell you a little bit about ISO and why we determined this quality system would be the best mechanism for us to use as part of our Quality Program.

ISO (pronounced "eye so") is a Greek word/prefix meaning standard or uniform. The term "ISO" relates today to a standard way of doing business, or a set of standards which define the way to deliver a product or service. To be ISO compliant means simply that an organization has a set of standards (procedures) in place to document how its business is accomplished. To be ISO certified takes it one step further and ensures that organization is following those standards. Additionally, those standards have to meet a specific set of criteria, ensuring adherence to basic quality principles. The certification process requires an outside independent certifying agent review of the organization's Quality System to initially determine if it meets the International Certification requirements. Once certified, the organization must undergo regular review to ensure compliance with the documented Quality System. Sounds complicated, but think of it as kind of a Good Housekeeping Seal of Approval or a UL (Underwriters Labora tory) approval seal on a product that you might buy.

ISO Certification is not an end all to a Quality System. For example, it is possible to have a process documented that could actually deliver a mediocre quality product or service. We still need to have other quality tools in place and in use to ensure that we deliver a product that meets our customer's needs and expectations. Process controls and measures of effectiveness with statistical process control boundaries are still a requirement. Customer feedback and response to discrepancies and quality deficiency still have a role as well. But, having the process documented gives us a real good start when we need to look for areas of improvement or when the process does not meet expectations. Having all of our processes documented also decreases confusion over who does what, imbeds processes within our organization, maximizes training opportunities (desk guide OJT) and increases the rigor and reliability of our Quality Management System. Outside independent certification and audits also help to build in the discipline needed to ensure our documented processes are adhered to and kept up to date. Internal audits are used to ensure compliance and maintain the necessary program vigor.

Process ownership is also a key to successful implementation of ISO principles as well as continuous improvement of the way we do business. The ELC has deployed the use of Quality Management Boards (QMB's) to oversee our three major product lines; Parts, Information and Services. The processes defined in our ISO procedures are under the auspices of those Boards. In a future issue of the ELCLOG, I'll discuss more about the relationship of QMB's to the overall Quality System of the ELC. Have a good Coast Guard day.

> **MIKE HEALY Executive Director USCG Engineering Logistics Center**

U.S. Department of Transportation **United States** Coast Guard



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ELCLOG is prepared by the ELC's Platform Management Division.

Editor's Note

Your new editor and point of contact for the ELCLOG is CWO Michael Ford. Phone: 410 762-6106. E-mail: Msford@elcbalt,uscg.mil Please contact me with any ideas or articles you would like to post or see in the ELCLOG.

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Contacting the Engineering Logistics Center

Customer Feedback

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Telephone: 410 762-6000

Requisition Management for emergency requisitions, questions about pending requisitions, ROD's QDRs, etc. Telephone: 410 762-6800 Fax: 410 762-6213

Platform Management for number s listed in the platfor m management pages

Web Sites:

Internet:: www.uscg.mil/hq/elcbalt Intranet: cgweb.elcbalt.uscg.mil

Record Message Traffic:

The ELC plain language address is: COGARD ENGLOGCEN BALTIMORE MD Note that this address supersedes the previous PLADs for Supply Centers Curtis Bay and Baltimore

Cutter Support Review (CSR) Coordination

How the ELC Prepares for a CSR

By CWO Bryan O'Sullivan

What is a CSR

The CSR is a periodic logistics support review conference that is hosted by the ELC every three years for each cutter class. The CSR is a Natural Working Group (NWG) used to review, identify, and correct logistic support issues using unit solicitations and the Cutter Class Maintenance Plan (CCMP). Commodity Management Plans (CMPs), are developed by identifying critical items to support, the various support actions required, and who will accomplish those actions. The CSR also provides an opportunity for cutter personnel to meet face to face with members of the ELC, MLC type desks, HQ, fellow cutter representatives, and to educate participants about the CSR process and the ELC. A functional description of the CSR process can be found in COMDTINST 4105.4 and the summer 1999 edition of the ELCLOG.

How the ELC Prepares a CSR

As stated before, CSRs are conducted every three years for each cutter class. The CSR coordinator and the applicable Logistics Manager (LM) follow a detailed action plan for the execution of a successful conference. The following is a condensed version of the action plan:

Beginning 34 weeks prior to the conference, the ELC will task the applicable MLC to solicit via message:

- A. Cutters/NESUs: The top 5 critical equipment support problems.
- B. MLCs: The top 5 critical support problems from CASREPS. CSMPs, SHIPALT proposals, etc.
- C. ELC: The top 5 critical equipment support problems from SHIPALT proposals, case files, back ordered items, etc.

At a minimum, the message will request the following information that is required from each unit to properly identify each critical support problem:

- Unit submitting
- Equipment and Component Problem description
- Nameplate Data
- Manufacturer Part Number
- · Source of Supply for Subject NSN
- APL Number
- Tech Pub Number/Reference Tech Manuals • Reference Designator (ELEX & ORD Only)
- What Unit Did to Resolve Issue
- Identify (up to 2) Attendees for the Conference

NOTE: Cutters need to fill out as much of the above information possible for their support issue to be considered for review.

The MLCs and the ELC then conduct a planning meeting to prioritize the top 20 critical equipment support issues. The ELC will use those prioritized to generate draft CMPs. Realistically, the ELC receives more than 5 issues per cutter and will usually discuss as many issues that time permits during the conference. Many times the same issue is brought up by more than one unit. The ELC will research the CMPs across platforms to identify past CMPs which may pertain to the current CMP to avoid duplication and to study past resolutions as they apply to current situations. The ELC then develops and mails a "Preliminary Review Package" for each expected attendee. The package will include at a minimum: CMPs to be discussed, proposed resolutions and APLs for subject CMPs, hotel information, and local Baltimore attractions. The attendees are requested to verify APL configuration for their unit, Allowance levels and any missing information on each APL. During the remaining time prior to the conference, the ELC makes all of the logistical arrangements for the attendees. These include: hotel and meeting support, tono numbers for the attendees, identification of computer support, draft the agenda for the meeting, coordinate guest speakers, conduct pre-CSR coordination meetings with Equipment Specialists and Item Managers, coordinate tech pub support, develop a Master Workbook for each attendee, and then conduct the CSR. At the conference, all of the CMPs are discussed until all attendees agree upon a final resolution. The ELC and both MLCs then sign the CMPs. After the conference, a CMP tracking book is generated and the final CMPs are routed for action and tracked by the hosting platform.

Post 210 CSR Report

The ELC recently hosted the 210 WMEC CSR on 14-18 August 2000. Over 151 issues were submitted by 15 of 16 cutters. 25 CMPs were discussed as well as 34 non-CMP side bar issues. To date, 10 CMPs have been completed, 26 provision cases and 10 Job Order studies were developed and are currently under tasking. \$\pm\$

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MK 92 Fire Control System Search Antenna Elevation Misalignment Problems

See the Whole Picture

f your Planned Position Indicator (PPI) is covered with excess sea return or you receive a minimal return from surface targets, you may have a search antenna alignment problem. There is a four-step procedure that confirms and adjusts the search antenna elevation that takes about two hours to perform. You need to be tied to the pier and remember to start in the morning, before the CAS gets too warm.

nometer for the search antenna should be 1 degree 50 minutes more than the inclinometer on the stab bridge.

3. If your antenna is not 1 degree 50 minutes (+/- 10 minutes) greater than the stab bridge, adjust it using the procedures in the tech pubs (UD401) adjustments. It may take several adjustments of the spiral scan linkage turnbuckle to get the desired antenna elevation.

Procedure

- 1. SNAP the search antenna elevation position at the DEAC (electrical position).
- 2. Measure the mechanical position of the search antenna (mechanical position).
- 3. Adjust the mechanical position of the search antenna to be positive 1 degree 50 minutes (if required).
- 4. Adjust the elevation synchro to the new mechanical search antenna position (if required).

Detailed Steps

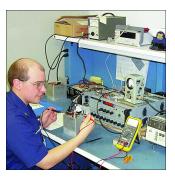
- 1. The SNAP data is the reported position of synchro B4 in UD401. It is important to remember that the reported position by B4 may not represent the actual mechanical position due to synchro alignment error. The SNAP address for the MK92 Mod 1 Tape Rev 137S is 2225.
- 2. The procedure for adjusting the mechanical position of the search antenna is in the tech pubs under the UD401 adjustments. Unfortunately, the procedure there does not take into account for the natural pitch of the ship. To factor in the pitch of the ship you will need to use a second inclinometer on the machined surface of the Stabilization Bridge. When taking readings from the search antenna machined surface, take simultaneous readings using the inclinometer on the stab bridge. The incli-

4. If you had to adjust the mechanical elevation of the antenna in step 3, then you need to adjust B4 to match the new position. The procedure for this is, again, in the tech pubs under the UD401 adjustments. To read the search antenna elevation data, use the A/D address of 70. The A/D address read outs are in tenths of a degree, so the conversion to minutes is .X degrees * 60 = Y minutes.

The inclinometers that you have on board, contained in two small wooden boxes, are not the easiest things to use. They should have directions for their use contained in the boxes. If you do not have the directions, or if you have any questions concerning this procedure, contact FTC Seybold at 410 762-6621, or email at eseybold@elcbalt.uscg.mil. For this and other helpful Mk 92 technical information refer to the September issue of the Mk 92 NEWSFLASH newsletter.

Serious Business

Continued from page 1



with OEM standards. The Lab assures this conformance by only using M&TE that has been calibrated and certified to comply with standards of known accuracy that are traceable to the National Institute of Standards and Technology (NIST). Some instruments are calibrated in the Lab, while other, more complex pieces, are calibrated by commercial calibration vendors. Either way, in order to maintain the highest level of product quality, both commercial and internal calibration sources are required to meet the stringent requirements of the American National Standards Institute ANSI/NCSL Z540 standard.

So critical to product quality is measurement accuracy, that a single clause, Element 4.11 of the ISO 9001 standard, is devoted to Inspection, Measuring, and Test Equipment. Not only does this ISO requirement mandate that M&TE are calibrated, it also requires control of routine calibration schedules, handling and storage of instruments, identification of compliance, and the maintenance of appropriate instrument certification and documentation. Both ELC internal auditors and external (third party) assessors working on behalf of the ISO certification registrar routinely audit the Lab for compliance with these requirements.

As you can see, the ELC's Electronic Systems Lab is serious about quality. We, like the rest of our organization, strive to produce and assure a consistently highquality product to you, our customers, for each and every requisition you submit. 🕹

New Engineering Change Request

The new Engineering Change Reguest CG-5682 (Rev. 9-2000) is now available for JetForm Filler at the Office of Information Management (G-CIM) web site. It is to be used for both HM&E and ELEX. Previous editions are obsolete. Here is a link that will take you directly to the form: http://www. uscg.mil/hq/g-s/g-si/g-sii/ forms/cg5000/CG5682.mdf

A new Engineering Change Approval form is being developed. When completed it will also be available at the G-CIM web site. This form will be very similar to the current Ship Alteration Approval CGHQ-3379 (Rev. 6-98) and will primarily reflect terminology changes. &

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Standard Boats Scoop

41 UTB Cabin Top

The Engineering Logistic Center issued nineteen 41 Cabin Tops during the last 2 years. Currently, there are no backorders. Normally cabin tops are not maintained in our inventory, however several cabin tops from the most recent order were shipped to the ELC for storage until orders are received. This will ensure immediate support to the fleet. After this stock is exhausted, it will take approximately 10 weeks upon receipt of a request to fill an order. To order a cabin top use ACR 1940-01-F83-0193 with an unfunded MIL-STRIP requisition (free issue item). Upon receiving your cabin top, an inspection should be conducted for any possible shipping damage and defects. If any damage or defects are noted it needs to be reported immediately.

Change to CASREP Info Addee

As per message DTG 231808Z AUG 00, Subj: Casrep Routing for the Fleet Logistics System (FLS). It establishes FLS as the central repository for all Coast Guard vessel casreps, replacing SPCC Mechanicsburg in this role.In order to make the system work all cutters and standard boats stations need to include the following PLAD as an INFO ADDEE: COGARD FLS MARTINSBURG WV.

41 UTB Mast

Due to the recent reports of masts cracking on the 41 UTB.the ELC sent out a Safety Advisory DTG 201023Z AUG 00. In this message the ELC advised all 41 UTB stations to conduct a thorough inspection of their masts, paying particular attention to the area directly above and below the 2nd Towing Light and Stern Light. Due to the potential safety hazards involved, units were advised to replace any masts found having cracks in this area on the main structural mast pipe. Do not to attempt any welding repairs. All cracks should be reported via message or email to CWO Mchale at the ELC. To help prevent movement and cracking, units should ensure their mast is tightly secured with chaffing gear in its support bracket. Any question or concerns regarding this issue should be directed to CWO McHale 410 762-6188.

Change to 49 Shaft Seal NSN

Shaft Seal assembly (NSN 2040-01-442-2073) was changed. If you've ordered this NSN previously, you may have received 3 separate

boxes/kits; a shaft seal assembly drawing number 841003011; the installation kit drawing 841005003, P/N IXU-200; and the Stern Tube Clamp Adapter drawing number 841003839, P/N SXU-2000X4750. NSN 2040-01-442-2073 now consists of the shaft seal assembly, drawing number 841003011. The installation kit is still available as NSN 2815-01-461-3236, and Stern Tube Clamp Adapter must now be ordered from the manufacturer.

Web Sites

www.uscg.mil/hg/g-s/g-si/ g-sii/forms/formindx.htm

—After much tweaking to reflect the new 47 MLB and the 49 BUSL, a new Boat Inspection Report was implemented. The form is not available in Jet Form program, but can be found using the following link Use the drop down menu on the left to select the 3000 series and go to form CG 3022. If you have any problems or questions concerning this forms feel free to give us a call.

www.uscg.mil/hq/rtc/utb/rtcutb.html

-Provides an overview of the UTB System Center, available resident courses and the StanTeam.

cgwb.elcbalt.uscg.mil

—Provides the most current information available at ELC. By reviewing the Platform Status Report, you can see the status of Alterations, Prototypes and the current ELC LOG.

cg.comdt.uscg.mil/G-OCS/G-OCS.htm

-Provides access to the latest news and hot topics concerning the Small Boat committee.

cgweb.elcbalt.uscg.mil/alts/boatalts.htm

—In an effort to speed up the distribution of BoatAlts, the ELC started posting all new BoatAlts in our Product and Services site of the ELC's Home Page. Units will receive notification on new BoatAlts via message traffic.

cgweb.elcbalt.uscg.mil/dartsqry.htm

-Check the status of Engineering Changes.

cgweb.elcbalt.uscg.mil/docs/ **ELCPSRWEB/ELCPSR.htm**

—If your interested in the lasted and greatest news concerning the Standard Boats community, come check out the ELC Platform Status Report (PSR) at. The PSR provides you with a look at current issue pertaining to your class of small boat, along with issue pertaining to the whole small boat community in general. **4**

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ELC Systems Support

By CWO Terry Manning

think the saying goes something like this...Old communication equipment never dies; it just shows up at the ELC for support. Okay, maybe it isn't quite like that, but we have so much communication equipment that is old, obsolete and hard to support, it sometimes seems that way. Managing this old equipment is a real juggling act. We are constantly looking for ways to improve our stock availability. Three pieces of communication equipment that epitomizes our dilemma are the AN/ARC-164 Transceiver, Filter Modules for the GSB-900, and HF-80 10KW Transceiver.

The AN/ARC-164 is a line-of-sight transceiver used for ground to air communications. Unfortunately, when the Coast Guard air arm decided to upgrade their transceivers to a later version the shore side of operations was not included. The Filter Modules for the GSB-900, the item with the most backorders in our comms inventory, have been a problem as early as 1992 when they were managed in Supply Center Brooklyn. There were both analog and digital at that time with several versions of each. We have managed to resolve that problem but we are currently experiencing a high failure rate among the remaining digital filter modules and are finding it difficult to keep up with repairs. The HF-80 is the hardest to support and requires an extraordinary amount of time and effort to keep up and running. The Air Force is the manager for half of the 91 items and commercial vendors work the remainder. When our assets go to the Air Force for repair, we are competing with all the DOD units that still use this equipment and their casualty can actually be filled using one of our items. Repairs through the commercial vendors have not been very successful either. Long repair times, up to twelve months, shortages of parts, lack of technical specifications and poor quality has plagued our efforts.

To improve our situation with these and other older communication equipment here are some of the steps that we are taking:



- A vigorous recapitalization effort by providing supporting documentation on the cost and feasibility of continued support to the responsible Program Managers.
- Meeting with the Air Force at Tinker AFB to determine how best to support the HF-80.
- Visits to Army's communication and electronic repair depot at Tobyhanna to determine their capabilities.
- Having our Electronic Technicians take the courses to become Contracting Officer's Technical Representatives (COTR's) which will allow them to make quality inspections at the vendors repair facility before and after contract award.
- Working with the Original Equipment Manufacturers to purchase any remaining stock they have or if financially advantageous, have them build as many units as they can from remaining parts.
- Holding monthly meetings with the TIS-COM to discuss logistical and technical support for various equipment.
- Passing on vendor information to our technical and procurement personnel when a field unit finds recommends a new source of supply that can do the repairs.
- Reviewing what information can go on our Intranet site to keep the field better informed of our progress.

We will continue to be innovative in the management of the many pieces of obsolete equipment that we stock. We are optimistic that our efforts will succeed in finding new ways of supporting this old technology. We appreciate the contributions, cooperation and patience of those of you who have to work with this equipment everyday. \downarrow

NESU Seattle's MICA Manual Formalizing Icebreaker Support

By LTJG Matthew P. Moore

For the first time ever, a Coast Guard Naval Engineering Support Unit (NESU) will receive a Management Information for Configuration and Allowances (MICA) manual. Logistics managers in the Icebreaker Branch at the Engineering Logistics Center (ELC) are working with NESU Seattle to develop a MICA manual to support both Polar Icebreakers and USCGC HEALY.

In the fleet, the new MICA manual replaces the well-known Combined Allowances for Logistics, Maintenance and Support (CALMS) manual. MICA's advantages over CALMS include better CMPlus support, a full electronics allowance, and reference blocks linking equipment APLs with their associated Technical Publications, Drawings, and Maintenance Procedure Cards (MPCs).

Although NESU Seattle never had its own CALMS manual, it provided substantial engineering support to all of its assigned cutters and by necessity built an inventory based on their maintenance experience. Using their time-tested inventory of repair parts and comparing it to the POLAR class MICAs, ELC will produce a manual to meet the Polar Icebreakers' repair needs. For the new Icebreaker, USCGC HEALY, the Cutter Class Maintenance Plan (CCMP) and equipment Source, Maintenance, and Recoverability (SM&R) codes will be used to determine allowance quantities at NESU Seattle

When this work is complete, NESU Seattle will have a well thought out, structured allowance list that is tied to ship configuration and they will have documentation to support Chief Financial Officer (CFO) compliance. The ELC plans to produce NESU Seattle MICAs for the icebreakers by mid-winter 2001. \$\display\$

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Visit Our Web Sites At

Internet: www.uscg.mil/hq/elcbalt Intranet: cgweb.elcbalt.uscg.mil

> ELC Home Page

APLs—They Are Changing



By Sherry Pietila

f you weren't converted to a new MICA or made any ACR requests to update your APL's, then you'll be surprised when you see the new APL's (Allowance Parts List) found in your CALMS or MICA. The new MICA APL's are longer; what used to be a one page APL will probably be 2 pages. It also contains much more data than the old CALMS APL. In most cases, now you can find your onboard allowances, technical drawing numbers and even PMS numbers that apply to that APL.

The most recent class to undergo this major change was the WAGB 399, although there are others that have already received their new MICA after undergoing the process. And it started with the POLAR CSR (Configuration Support Review). Representatives came to the CSR and brought up configuration issues and the ELC listened to their concerns. In keeping with ISO Certification requirements, the process to formalize this new task was started. Behind the CSR is the prime example of all the divisions working together with one goal in mind: To produce the most accurate MICA and CMPlus refresh possible.

Ever wonder what happens next? After the CSR and everyone went home, the people at the ELC went to work; it was very labor extensive task carefully reviewing all of the APL's for the POLAR SEA (WAGB-11) (the first to be worked on). First the APL's were printed then reviewed, approximately 1400 HM&E

APL's by the CDM, LM and TSM within the icebreaker platform branch. The Storeroom Items (SRI) alone were 3.982 items, the Operating Space Items (OSI) were 1, 193 and ELEX was 1,236 items, which amounts to quite a lot of allowances to be reviewed. The APL's were reviewed for content. requirements, allowances and obsolete data, combining this with the results from the CSR. Then the APL's were forwarded to the Provisioning Div of the ELC, where experts reviewed the APL's again for the same things such as part num-

bers, cage/stock numbers and APL replacement for accuracy. Keep in mind each HM&E APL alone can contain as few as one line item or as many as 500 line items. The PMS Section of ELC reviewed your PMS cards to make sure the correct items/number is onboard to carry out PMS requirements. While ELC personnel within all the divisions were busy with this extremely large amount of data, some of the personnel were also working with the contractor going over revisions and changes to assure the CMPlus reflects what is in the MICA. After our provisioners have finished, it came back to Icebreaker Branch to be reviewed and make any configuration changes that may be required. Then the final step, it goes to print and there, the end result is the POLAR SEA (WAGB-11) will have the most accurate MICA that could be produced.

Although it may sound like a piece of cake, this process takes months to complete. So if you happen to be one of those wondering what is taking so long, think about all the experts that are involved in this process and all our customers that want MICA. ELC's goal is to provide the most accurate MICA documentation while providing valuable training and experience in this new process. There are still others on the waiting list for their MICA. When you receive your new MICA, take a look at it and realize that is the product of a truly combined work effort of all the people at the ELC. That's the job here "Service to the Fleet". \$\displaystyle \text{ } \tex

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PMS 2000 Update II

The Results Are In

By CWO Bob White

irst I would like to welcome LTJG Tim Wieland to the Preventive Maintenance System (PMS) staff, Tim comes to us from CGC LEGARE and has relieved Pat Archibald who has moved on to civilian status. In our last PMS 2000 update article in ELC Log winter 2000 edition, we told you of the methods, philosophies and goals of the project. The last conference in this series was held in April 2000 and the remaining manuals will be distributed 1st quarter FY01. It has been a long

and intense road encompassing 29 conferences in 39 months reviewing over 7600 Maintenance Procedure Cards (MPCs). We must thank everyone who participated in this tremendous effort because without you, it couldn't have happened. Fleet deckplate experience was key to the success, who better knows the equipment and how to maintain it? Our mission was to enlighten conference members on Reliability Centered Maintenance (RCM) and Conditioned Based Maintenance (CBM) ideals and to encourage them to "Think Out Of The Box". We were overwhelmed at how willingly the conference members accepted these ideals and ran with them producing creative, practical and efficient solutions. This has changed the way the Coast Guard views HM&E Preventive Maintenance. We hope that a seed has been planted in the fleet, and that conference members will inform and teach both junior and senior personnel the "If It Ain't Broke, Don't Fix-it" philosophies.

The spreadsheet (page 9) shows the results of the conferences. We feel that these figures are reasonably accurate. Obviously there will be some arguable points but these numbers come directly from the books. As we look at the final total of 1,493,363 labor hours reduced across the fleet annually, does this mean we now have this much free time? I should think not! One must remember that



a good majority of the procedures deleted were procedures that were not being accomplished anyway. A lot of RCM was happening in the fleet by common sense, we justified it with the conferences. Secondly, the conferences were also validations of labor hours, many of the cards were incorrect as compared to what was actually being used. As the spreadsheet shows, some classes actually went up in labor hours while the number of MPCs went down (an unseen variable). A standard formula has also been developed for determining labor hours which was absent in the past. Now we must consider the corrective maintenance labor hour calculations. If we are not PM-ing a piece of equipment and at the conference decided to let it "Run To Fail". eventually we will have to renew. replace or repair that item. We looked at the cost of routine maintenance compared to run to fail and considered it a gain, knowing that down the road a repair of some type will happen and we were willing to take that risk without jeopardizing the unit's mission.

Overall this project has been a tremendous success, we cleaned up the entire HM&E Preventive Maintenance System for the fleet. This has reduced unit workloads and allows more time to perform other tasks. The hidden costs of the old PMS is not measurable, how many times did we have to fix something that was working fine before the PM? I believe you

all have witnessed this. We also have more accurate labor hour figures to assist in unit crewing studies and releveling efforts.

wish we could take a deep

What happens now? I

breath, put our feet up and wait for the phone to ring but unfortunately there is still a lot of work to do. The next big project is to resolve the cross platform issues for like pieces of equipment onboard multiple vessel classes. We will be working with equipment managers, type support desks and the fleet to find the like equipment then compare the different PMS requirements and try to standardize them as much as possible. Bearing in mind plant configurations, operating environments, and mission requirements all play a big role in the PMS.But first we have to get the CGC **HEALY** manual promulgated, 225 WLB "B" class changes worked out and deliver 3 years of amendments that have been sent in by the fleet. With the massive rewrite of the PMS, change requests have been placed on the back burner. We do not want anyone to think that the changes they have submitted are lost. As changes came in we stock piled them for the review conferences and decided then on what actions to take. Any changes that came in after the conferences are on file and will be resolved this year.

Please call the PMS staff at 410 762-6628/31, if you have any questions, comments or just want to say hi, we both will be glad to hear from you. \$\psi\$

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CWO Tim Wacker
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DC Corner

By CWO Chris Evans

re you looking for new DC equipment? For over 60 years, the Coast Guard men and women have been using the Oxygen Breathing Apparatus. Well that's about to end, starting in FY02 the Engineering Logistics Center will commence a 6 year migration that will replace all OBA's with the Self Contained Breathing Apparatus. The time has finally come and all I can say is, it's about time! The 6 year migration plan to replace the OBAs with the SCBA's will be complete in FY07, hurrah!



PMS 2000 Results

Cutter Class	# of vsls	Old L/Hrs	New L/Hrs	Reduced Hrs	Total Class Reduction	TotalOld L/Hrs	Total New L/Hrs
400 WAGB	2	43,713	33,258	10,455	20,910	87,426	66,516
378 WHEC	12	25,411	17,863	7,548	90,576	304,932	214,356
295 WIX	1	19,554	20,271	-717	(717)	19,554	20,271
290 WAGB	1	9,454	10,481	-1,027	(1,027)	9,454	10,481
270 WMEC	13	18,864	19,010	-146	(1,898)	245,232	247,130
230 WMEC	1	8,113	5,880	2,233	2,233	8,113	5,880
225 WLB	16	14,894	4,234	10,660	170,560	238,304	67,74
213 WMEC	1	4,303	7,540	-3,237	(3,237)	4,303	7,540
210 WMEC	16	12,454	9,005	3,449	55,184	199,264	144,080
180 WLB	20	15,117	6,396	8,721	174,420	302,340	127,920
175 WLM	14	11,633	5,316	6,317	88,438	162,862	74,42
160 WLIC	4	3,331	2,909	422	1,688	13,324	11,630
140 WTGB	9	6,427	4,771	1,656	14,904	57.843	42,939
120 BARGE	2	2,716	713	2,003	4.006	5.432	1,420
110 WPB	49	5,788	4,040	1,748	85,652	283,612	197,960
100 WLI	3	6,187	4,019	2,168	6,504	18,561	12,05
87 WPB	50	11,306	3,344	7,962	398,100	565,300	167,200
82 WPB	28	2,790	1,532	1,258	35,224	78,120	42,89
75 WLIC	8	7,987	3,149	4,838	38,704	63,896	25,19
65-75 WLR	18	12,544	4,551	7,993	143,874	225,792	81,91
65 WLI	4	1,044	1,261	-217	(868)	4,176	5,04
65 WYTL	11	3,055	946	2,109	23,199	33,605	10,400
55 ANB	20	1,565	1,268	297	5,940	31,300	25,360
49 BUSL	23	1,843	1,431	412	9,476	42,389	32,91
47 MLB	54	1.827	1,598	229	12,366	98.658	86,29
41 UTB	190	1,662	1,336	326	61.940	315,780	253,840
30 SRB	2	896	348	548	1,096	1,792	69
26 MSB	44	1,311	354	957	42,108	57,684	15,570
D.C.	136	888	785	103	14,008	120,768	106,760
					Total	3,599,816	2,106,45
Total Annual Labor Hour Reduction Percent Reduction					1,493,363		
					41%		
E-4 is the average paygrade performing PMS Labor Hour Cost					\$18.46		
E-4 15 UIC A		ygraue performing verall Annual (567,480.98		

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CG In-Line Fuel Sampling Program, Part 3

By Tom Gahs

n partnership with the US Navy and the Defense Energy Support Center (DESC), the Coast Guard is participating in an Inline Fuel Quality Sampling Program. The data is being used to:

- 1. Establish the overall quality of commercial fuel products;
- 2. Confirm bunker quality contract compliance for Naval Purchase Description Marine Gas Oil (NPD MGO), DF2, or B76 products;
- 3. Check fuel quality (for information only) against critical F-76 MIL-SPEC criteria not included as bunker contract requirements;
- 4. Assess quality for each load of fuel, as actually delivered from the supplier, and provide participating cutters with specific operational advice when a fuel load doesn't meet expected quality standards;
- 5. Build a fuel quality database so cutters can anticipate fuel quality for a given port of call, and avoid suppliers of poor quality fuel.

Twenty cutters are currently participating in the program. Only commercial fuel products are sampled and analyzed, whether the fuel is obtained through DESC bunker contractors (NPD MGO, DF2, or B76), or on the open market. MIL-SPEC fuel products (F-76 or JP5) are not sampled because these products have their own extensive quality assurance programs.

Fuel samples are taken at the deck manifold connection using a special sampling flange. The sampling flange provides a continuous drip sample throughout the fueling period, and across the entire cross section of the fuel manifold, to ensure the sample is representative of the whole fuel load. Five 1-liter samples from each fueling are forwarded by express courier to the contracted lab.Compliance with the NPD contract requirements is reported within one business day of the samples' receipt. Results for the full F-76 results takes a few days longer. The results are interpreted by ELC and forwarded to the cutter via Naval message. ELC also provides operational guidance if the fuel didn't meet quality expectations. If a bunkers contract requirement wasn't met, ELC initiates the formal Customer Complaint process with DESC. We've seen several cases where DESC bunker

contractors have improved the quality of their product as a result of this process. The results are also entered into a fuel quality database. The database is updated quarterly and can be accessed from any CG Work Station III at http://cgweb.elcbalt.uscg.mil/docs/Fueltest/fueltest.htm. Analysis, shipping, and consumable supplies costs are paid by the program.

A summary of results (as of Oct 2000):
• The quality of commercial fuel products, including NPD MGO, is far better than originally anticipated;57% of the tested samples fully meet the NPD requirements.

- —29% failed because of high Cloud Point temperatures. Cloud Point is the cold temperature at which wax crystals first form in the fuel and could therefore become a filter clogging problem.
- —11% failed due to **Appearance** (either **Clear & Bright** or **Color**). Typically a sample failed because of haze, or because it was dyed green (from the Caribbean). Only red colored dye is allowed by the NPD.
- 30% of the samples met the full F-76 criteria.

 —Of the samples that did not meet the full F-
- To the samples that did not meet the full r-76 criteria, 45% failed the **Storage Stability** criteria. Storage stability refers to the long term (3 years) oxidation stability of the fuel. When a fuel becomes unstable, it forms oxygenated particulates that cause rapid filter clogging. If the particles should get past the filters, serious engine damage could occur. Failure to pass the F-76 criteria doesn't necessarily mean that the fuel was currently unstable, only that it would not have remained stable for the entire 3 year period. To date, no cutter who is participating in the program has actually experienced a shipboard storage stability problem.
- The worst quality fuel is generally found in the Caribbean.

The CG's In-Line Fuel Sampling Program has proven to be extremely beneficial for fuel quality personnel at DESC, Navy and the CG, but also for the participating cutters. Current plans call for gradual expansion of the program to include all WHECs, WMECs, and WAGBs. Five more cutters will be added in FY01.

Any questions contact Tom Gahs, voice 410 762–6291, fax 410 762–6203, email **TGahs@elcbalt.uscg.mil.** The next issue will focus on NPD MGO fuel characteristics. \$\psi\$

ASK LOGGIE

Got a question about Logistics? Ask the Loggie. Hopefully, this column will inform, enlighten and amuse, and if you're not careful, you just might learn something. Due to the overwhelming volume of letters, emails and phone calls received, only a small percentage can be published, and we are unable to respond directly to the submitter.

Welcome back! Hope you all had a loggerific, non-denominational, non-sectarian holiday season! Let's log...

Loggie, APL? AEL? EAM? CPL? Are they different? Pondering in P'City

Loggie sez: Good question. Basically, all the above are types of allowance lists. Let me try to clear this up. Here we go:

APLs (Allowance Parts Lists) An APL is an allowance document developed for every installed, centrally supported equipment in the Coast Guard's inventory. It may list the technical characteristics of a particular piece of equipment and its related logistics information. APLs also specify maintenance significant repair parts associated with the equipment. Each repair part listed is expected to fail during normal operation and is a potential allowance item, but only those with sufficiently high predicted failure rates or actual replacement rates will normally be authorized as On Board Repair Parts (OBRPs)/Operating Materials and Supplies (OM&S), or items critical to the safety of the units personnel/mission.

AELs (Allowance Equipage Lists)
AELs describe a system, such as
damage control, supported by a
range of Operating Space Items
(OSI) and authorized by COMDTINSTs or Navy Requirements. The
AEL lists the required OSI
allowances. This material falls into
the general category of tools and
equipage that are retained in the
custody of the user department.

The shorter version for nonloggie types:

"If you pick the ship up out of the water and turn it upside down most of the items that fall out are AEL items (or general consumables)"

EAM (Code)

Nope, nope, nope! EAM Code does not stand for Electronic Allowance for Maintenance Code. EAM stands for Electric Automated Machine, an old punch-card program used to load elex APL data onto an even older computer system. The term EAM is no longer used (except by a few logosaurs), APL will suffice.

CPL (Configuration Parts List) CPL is a term used by the CMplus community to describe both APLs and AELs.

Dear Mr. Loggie,
I just reported onboard a 378,
and was told by my second
class to order some relative
bearing grease. I cannot find
the item in my MICA. Any
suggestions?

Dear New Guy, Normally, greases and lubricants are part of the General Use Consumable List (GUCL), which is used to initially outfit a new cutter, or, the 210 MMAs. General Use Consumables consist of rags, wardroom china, bedding, miscellaneous general purpose tools, like left handed adjustable screwdrivers, and other items that are normally used and consumed by the cutter. GUCL items are normally segregated by departments or rating, and would not appear in MICA. You might want to touch base with the SKs. While you're at it, you might want to get your boss, 10 feet of shore line and a DC punch.

Until next time, folks, I'm outta here . . .

Send your logistics questions to:Commanding Officer

USCG Engineering Logistics Center
Mail Stop 26, 2401 Hawkins Point Road,
Baltimore, MD 21226. Attn:M.G. Triano
Or call Mike Triano at 410 762–6161
or e-mail at mtriano@elcbalt.uscq.mil

ELCLOG

"Who gets this whichamagig?"



By Jim Christ

ow many times have you received items addressed to your unit from a small parcel courier or trucking company only to puzzle over, "Who the heck gets this stuff?"

CG Units frequently receive small parcels, or even freight, with addresses that don't always clearly indicate the ultimate "user/recipient" of requisitioned material.

Keep in mind the requisitioner (whether an individual unit, an MLC or HQs) may not have provided complete info for us to pinpoint delivery to a specific user or point of contact for a project. So, often shipping addresses may not always easily identify the individual person or internal activity needing to take custody of the material or equipment.

If the material is addressed to your activity, you are obligated to maintain custody of the government-owned items. Exceptions to this rule are mentioned below.

Helpful Hints:

When you can't determine who the end-user of an ELC-shipped item from one of its warehouses at the CG Yard, Baltimore, or from our annex warehouse in Columbia, Maryland, here's some advice to solve the mysteries:

- Look carefully at any order document that accompanies the shipment: a DD 1348-1 may contain a special project number or "attention/marked for" that determines "who gets it."
- Call our customer service number: 410 762-6800.Be sure to have all relevant docu-

ment and shipping info handy so we can help pinpoint the ultimate recipient. Customer Service personnel will help solve your mystery or give you other disposition instructions. You may be referred to a project support desk or an item manager for those requisitions that may have been ordered by a third party (e.g. by a project manager, MLC or HQs).

Guidelines for Accepting Material at Receiving Activities. Check out the CG freight claims web page for proper receiving procedures and reporting shipment loss/damage/shortage discrepancies: http://www.fincen.uscg.mil/freight.htm.

Remember never lose control of U.S. government-consigned shipments by refusing them merely because you don't know at the time of delivery who is suppose to get the item. Determining the ultimate consignee often involves some inquiries, either locally or with the shipper. However, there are certain instances when you should refuse to off load or accept freight. For example, never off load or accept damaged containers of hazardous materials that may put at risk personal safety or property. Also, under certain order contracts.some shipments of material may need material inspection upon delivery in order to determine whether shipment is to be accepted or returned to vendor immediately-sometimes "turning the truck around" for return of goods to the vendor. Communicating with suppliers, carriers and shippers is always an effective way to resolve questionable deliveries at your activity.

Questions? Give us a call. &

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To: Content Approving Officer, USCG Engineering Logistics Center						

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From Washington and Points West or South From HWY 95 or 295 North, Turn right on Baltimore Beltway I–695 heading east toward Key Bridge for 5.4 miles to Exit 1. At the end of the off ramp, bear right. You will immediately come to an intersection with a traffic light (Hawkins Point Road). Make right on Hawkins Point Road and continue for ½ mile to the first traffic light. Turn left into the Coast Guard Yard. The gate guard will provide a parking pass and parking directions.

From Baltimore and Points North or East From HWY 95 South, turn left on Baltimore Beltway I–695 heading southwest for 16.7 miles, over the Francis Scott Key Bridge, to Exit 1. At the end of the off ramp, turn left. You will immediately come to a an intersection with a traffic light (Hawkins Point Road). Turn right on Hawkins Point Road and continue for ½ mile to the first traffic light. Turn left into the Coast Guard Yard. The gate guard will provide a parking pass and parking directions.

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